angina #13

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No 113 Arch Street

No 2.

admitted March 27th 1820.

An Inaugural Dissertation
on
Angina Pectoris.

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That there is nothing new under the Sun must be admitted, or in other words we must accede to, notwithstanding some extraordinary incidents would, at the first view, seem to controvert this wise observation: Nature is certainly uniform in her operations, in the physical, as well as in the moral world, the same causes producing the same effects (cæteris paribus) though desired effects are not consequently produced, by the same causes, more particularly in the healing art, because the causes are not sufficient to produce such required effects, in consequence of defects, or some peculiarity.

Having then selected for a dissertation the disease known by the name of Angina Pectoris, I must remark that I have not the least practical knowledge of it whatever, never having seen one single case, and that all I can do, will be, to walk in the path of those, who have already added much to medical history,

in detailing their respective theories, and knowledge of this disease; I wish to look superficially at the different and various theories, of the principal writers in particular, who have noticed this disease, and select from some of them that view, which may be the most plausible and intelligible.

As far as I can discover, Angina Pectoris is in a great measure a novel disease, and had passed unnoticed among practitioners and writers, until a description of it was published by Dr. Heberden about fifty or sixty years ago in the Transactions of the College of Physicians of London; Several eminent physicians have since attempted an investigation, but we learn nothing more from them, than that the disease was one of a spasmodic nature; Indeed so very seldom does it appear, that its existence has been doubted by some; Dr. Kuhn was decidedly of the opinion, that there was much doubt, whether this disease existed or not.

Of the precise nature and pathology of Angina Pectoris little is known, and we are left unacquainted

with it in a great measure, as very little has been made known to us; So little is it understood, and being a complaint of rare occurrence, that it has never been well described until very lately.

By most of the European physicians, it was, as before observed considered spasmodic, particularly by Drs. Percival, Fothergill, and Wall, which opinion was early established and supported, Nevertheless even after admitting it to be dependent on Spasmodic action, we have not yet learned from them, the seat of the disease nor the part affected.

It was considered by some of the German Writers to be a species of Asthma, from the great resemblance it bore to it, as well as by the indications, which were to be fulfilled, in order to palliate or make a cure, and perhaps rendered still more probable by its yielding to such measures, as would effect a cure in Asthma. Dr. Darwin it appears noticed this disease, but we have not seen, whether he ever did, more than give it a name, and considered it, or bestowed on it the appellation of the

Asthma Histericum. Dr. Parry also noticed this complaint and published his sentiments on it; We should also infer, from what Dr. Cullen has said in his works, that he was not entirely ignorant of the existence of such a disease; Some of the views entertained by him, were in a measure similar to those of Dr. Parry, as he declares it to be in reality a Syncope or fainting, differing from the common syncope in degree only; Dr. Parry mentions its being ushered in with a much greater degree of anxiety, with pain very great and intense about the region of the heart, and at the same time, when the patient is in a state of apparent health, any considerable exercise, more especially walking, when most of the muscles are brought into play, the disease is very frequently and readily excited; From these circumstances, he supposed the cause to depend on a diseased state of the coronary vessels of the heart, more particularly on an ossified condition of those vessels, and for the name of Angina Pectoris, he substituted that of Syncope Anginosa; This state of the coronary arteries says he may act as an impediment, to the

free motion of the heart and vessels in proportion to the extent of ossification, and that although there is a circulation of blood through the lungs sufficient for their nourishment, nevertheless the quantity is too insignificant for the purpose of keeping up and maintaining that vigorous action, so essentially necessary to the health and well being of the patient. From these sentiments on the subject, he conceives, that though a heart so diseased, may be fit for the common purposes of life, under certain circumstances, notwithstanding if there should be any great exertion of the muscular system, in walking or otherwise, then the system gives way under the increased demand. These opinions confessedly are extremely ingenious, and should not be despised or treated contemptuously; But this hypothesis however beautiful and feasible it may appear to many, may be, put down; Nevertheless it must be acknowledged that should this ossification of the vessels, under any circumstances take place, there must inevitably be great derangement and disorganization in the animal frame.

On the authority of Morgagni, Senac and others, we can state, that very many cases have occurred, where ossification to a great extent has existed, without any one symptom of Angina Pectoris, and that this disease has frequently occurred, without any morbid appearance of this kind.

Of the many and various opinions, which have been maintained, as to the nature and cause of Angina Pectoris, we think those of Parry the most ingenious, though not the most correct; They were very popular, so far as we have observed, and perhaps remained so in some parts of this country, till an American writer came forward and conjectured, that it proceeded from a plethora of the bloodvessels, particularly from a disproportionate accumulation of blood in the heart and larger vessels. This inference is drawn from the effects produced by such plethora, and from the particular kinds of persons liable to attacks of the disease, such as those of advanced life, those of corpulent and gouty habits, and especially those with short necks, also the

seasons of the year, from spontaneous discharges of blood from different parts of the body, and many other symptoms which would induce one to believe, that such are certain evidences of an overloaded state of the blood vessels, and lastly from its yielding to the directly evacuating remedies and issues. We conceive this hypothesis equally erroneous, if not much more so than the other, for we sometimes see plethora to be the consequence of disease; In the case before us, we should consider this inequality in the distribution of the blood to be rather the effect than the cause, admitting such to be the case in the circulatory system; And again, if this were sufficient to produce this complaint, we should have it one of our most frequent diseases, (on the contrary we find it to be one of rare occurrence) more particularly with those persons of full and plethoric habits, to which class of people indeed, the complaint is by no means confined, as we have evidence of persons of very delicate constitutions being affected with it.

With regard to dissections in this disease, nothing has been accurately revealed to us, so various are the phe-

-omena presented to us, that we are still left in doubt as to its nature and origin; so rarely are two cases exactly alike, that we find little difficulty in accounting for the variety of appearances in this complaint; In many cases there are no morbid changes, the heart and vessels remaining uninjured, or in other words shewing no marks of organic injury. Very frequently the vessels of the heart are in an ossified state, or at other times are seen depositions of matter to a considerable extent within the pericardium, as well as other morbid changes. It is by no means an uncommon circumstance, that water is discovered within the chest, an abscess in the mediastinum, arising in both instances perhaps from inflammation, or that state of the parts, which would under certain circumstances produce, or lay the foundation for Hydrothorax, or a diseased state of the liver and other viscera, approaching to, or in a state of scirrhosity. There is one case on record where all the phenomena attendant on this complaint, occurred and seemed to have arisen from a scirrhous state of the Pylorus.

With regard to the precise knowledge of this complaint there has been as before observed, much contrariety of sentiment; Dissections have thrown little or no light on the exact nature of the disease; What then are we to resort to? If in all cases we were acquainted with the immediate cause, the cure perhaps would not be tedious if well understood and properly considered. The great Sydenham remarked, that when the cause of diseases was known, with a correct history of them, he never was at a loss to prescribe a suitable remedy; but without this knowledge, he proceeded with great caution and deliberation.

The most satisfactory and correct view of this disease, has been brought forward by one of the many teachers in this school, who has added much to the stock of medical knowledge, and to whom we are indebted for so many useful precepts in our profession; Although not in reality the first who had this knowledge of the disease, he no doubt was the first to give vent to its real nature and character.

It appears that Butler in a work published by him, considered Angina Pectoris to be a gout of the Diaphragm; and in all probability the disease was treated by him accordingly. It is generally supposed that Gout (and we think very justly) is not a disease confined to any particular part or parts of the body; It was considered by the late excellent Dr. Rush to be a primary disease, but one which would under certain circumstances place itself in any part of the body; It affects ligaments, bloodvessels, the stomach and in short all parts of the animal economy; Chalk stones, dropsical effusions, into cavities &c are most frequently the effects of a morbid action in the blood-vessels, and by him this very disease of which we are speaking was called one of the symptoms of Gout.

Why then may not this disease be considered pathologically as one of an arthritic character, since we have sufficient evidence of its yielding to such measures as are made use of in Gout of a particular character. We believe that there are no pathological views so

correct and substantial as those entertained by Professor Chapman; He considers this disease as one of an Arthritic or Gouty nature, but having its seat and generated within the Stomach from hence spreading to every part of the System its morbid influence. In order to elucidate still more completely the correctness of these sentiments two or three cases may be mentioned.

Case 1st. There was a Gentleman in this City about twenty five years of age, who was supposed to be labouring under this disease, with some symptoms strongly indicating Gout; It was accordingly treated with Volatile Alkali and Sinapisms to the feet, when in a few hours a complete attack of Podogra came on, which after a time retreated to the heart, and terminated in the death of the patient.

Case 2d Mr. Ingersol one of the most eminent Lawyers of this City, was attacked with what Drs. Wistar and Rush considered a confirmed Angina Pectoris; He was taken with a pain at the insertion of the deltoid muscle, which extended itself to the

fingers: This was treated as the former case, and the pain fixed itself at the wrist.

Case 3d. A few winters since, a case occurred in a Lady very much under similar circumstances as the preceding case, and yielded to the same description of remedies.

These cases may be considered as clearly designating the nature of this disease more especially, by its pointing out, and demanding such measures, as are employed in Arthritic Complaints. Such were the views taken of this complaint, and such were the deductions drawn by the aforesaid Gentleman, when entering, or about to enter upon his professional Career.

Symptoms. As is commonly described, this disease is ushered in by an acute constricting pain, at the lower end of the Sternum, without any premonitary Symptoms, and gradually extends itself upwards to the insertion of the deltoid Muscle, or perhaps as mentioned by some more particularly up the arm of the left side, and continued downwards to the very

ends of the fingers, accompanied with extreme anxiety; and a sense of stricture so acute in some instances, as to threaten immediate dissolution by its interruption to respiration &c. These symptoms are brought on and exasperated sometimes to a great degree by any considerable exercise, but generally after a state of rest, or when the body is completely composed, they are either light or disappear entirely, until renewed by the exciting causes, by far the most common or frequent of which is, the ascending a flight of stairs, or walking rapidly up an hill.

In the more severe forms, (it now no longer depending on fatigue) has been known to attack the patient while in a complete state of repose, which indeed is by no means an uncommon occurrence. It has also been induced by coughing, sneezing, speaking, straining at stool, and perhaps, by many slighter causes, so readily indeed in some instances, is it excited into action. In the more advanced stage, when the patient is under the influence of the exciting causes,

the symptoms do not recede with so much facility the paroxysms are more violent, and in some cases continue for several days; Any one of the passions, or any emotion of the mind, has considerable effect in producing these paroxysms, as well as repletion of the Stomach. When the fit is violent the pulse sinks in a greater degree, and is very irregular, but in some few instances there is little disturbance to the circulatory system; The face and extremities are pale, followed by a cold sweat, and for a time the patient is deprived in a measure of sense, and voluntary motion; This disease being one of gastric origin and nature, we might readily suppose that the stomach was morbidly affected, which is reduced to a fact by the great irritability of that organ, rejecting in many instances, whatever is swallowed. This is a complaint, which when after having recurred more or less frequently during the space of some years, more especially if the attack be violent, the patient has the most overwhelming sensations and appre-

hensions of instant death; succeeded indeed in most cases by that terror of the human Family, after having suffered all the agonies of dissolution.

It has generally been found to attack men more frequently than women, and those in particular who have short necks, those who are inclinable to corpulency, who at the same time lead an inactive or sedentary life or are the votaries of pleasure, and those who are either affected with or predisposed to Gout.

In very many instances the attack has been known to come on suddenly, and occur in those persons, whose habits were good, and where the system was not affected by disease, or in those who had previously enjoyed good health. Although we have said, that the corpulent, robust &c are most frequently the subjects of this disease, nevertheless it has occurred in those of a thin and attenuated form.

As a general rule it commences its attack upon the middle-aged, though it is by no means peculiar to that period of life; Even those under the age of

maturity are not exempt from it; Perhaps we should be right in saying, that it most frequently occurs in those who are between the age of forty and fifty.

This disease should always be considered as a dangerous one, especially so at an advanced period of life, or when the system is broken down by any cause whatever, where the paroxysms are frequent and violent; It often happens that the patient is carried off suddenly, more particularly when the passions of the mind co operate with the other more violent exciting causes; Such was we believe the case of Mr. John Hunter.

Treatment. This divides itself as in most diseases of a paroxysmal form, into such remedies as are suitable for the paroxysm, and those for the intermission; But before proceeding directly to the application or exhibition of our remedies, we must impress and inculcate the propriety of studiously and entirely avoiding the exciting causes, without which our success in the management of the disease, as well

as our remedies would be fruitless and unavailing:
During a paroxysm, we should endeavour by proper remedies to alleviate the distressing symptoms before described, and the first step to be taken is to place the patient if possible in a complete state of tranquillity; In the more advanced stages, we often see the patient attacked when apparently in a state of rest; If then the symptoms be urgent and the pulse strong, and at the same time not contra-indicated by the state of the system, Venaesection is demanded and should be carried to a considerable extent; Some practitioners recommend small and repeated bleedings, but in most cases of this disease, (as well as in others, a well known instance in Apoplexy, a timid and feeble practise can not but be condemned, as such practise does not stop the march of the disease, but in very many cases proves fatal; Called in to a patient labouring under urgent symptoms, we should not hesitate, but at once take away twenty or thirty ounces of blood, carefully watching the effect: In some

cases many and repeated bleedings are called for, which should invariably be repeated, taking the state of the system as our index, and be governed entirely by the violence of the case: Dr. Parry recommends the patient to be laid in a recumbent position, and a small quantity only to be taken away at once.

Confessedly there is great difficulty in treating a disease according to every practitioner's peculiar plan, in fact it is a thing next to impossibility, particularly so when the pathology is not completely settled: The American practice differs widely from the European: Most of the practitioners of Europe, believe the disease to depend on spasm, which notion led to the profuse use of antispasmodics; Dr. Heberden employed spirits of Vitriolic Ether, opium, and many of the powerful medicines of that class; No doubt can be entertained of their efficacy in the very first or forming stage of the disease, or after the violence of it has passed off: Emetics were given by Dr. Percival, but these as well as many other articles, recom

mended, are in general unavailing: If blood letting be contra-indicated, or if it be unsuccessful, then we should resort to cups, bearing in mind that law of pathology, that ten or twelve ounces of blood, taken from the capillaries, will in many cases cure disease, when one hundred taken from the general system, will have little or no effect; Cups operate also, by inviting blood from deep-seated parts and as a species of vesication; They are usually applied to the back, accompanied by a blister to the Chest. After having taken blood, or after having gone so far with it as is necessary, we should then give medicine, to keep the bowels freely open, such as Calomel and jalap, or with them may be given the infusion of Senna; By these measures, a stop is frequently put to the disease, or the more urgent symptoms are subdued; After having gone thus far, our next duty is to deliberately consider the pathology of the disease, which will lead us to treat it as retrocedent Gout, with Volatile Alkali and Wine Whey, the latter of which, is perhaps one of

the very best articles, not only in the case before us but many others; Notwithstanding its efficacy, it is particularly so when exhibited with the former article; The late Dr. Kuhn declared that if he were called on to say, with what articles, he had effected the most cures, they would be the two preceding articles: Sinapisms are not to be overlooked, which are to be applied to the extremities. Occasionally the disease is so violent, that the system sinks under the attack, the pulse becomes depressed &c. Under these circumstances, venesection is still proper, but should be preceded by the warm bath, then as soon as the complaint is developed, the lancet is indispensable:

The second indication is in the interval to prevent the return of the paroxysms; The remedies used with this view, are divided into topical and general:

One of the best remedies which has been long known and much employed in many other diseases, is counter-irritation, with the view of establishing and keeping up drains from the body; For this purpose it was

formerly the practise to apply a blister to the chest. The irritation however now used, and produced by the application of a Tartar Emetic Plaster to the chest, seems to have superceded the use of any other kind, and is substituted for every other, no doubt on account of the peculiar species of vesication produced by it, which is extremely irritating and difficult to heal. Whether in reality it is superior in point of efficacy we are not prepared to say, but it is preferred by many practitioners.

Issues have been extolled and much employed acting on the same principle as the above mentioned. In attestation of their utility in this complaint, we have the high authority of McBride and Darwin. But when from the prejudices of our patients, their application is not wished, we should excite permanent vesication on the wrists by blisters &c. However useful they may have been in this complaint or in others, blisters to the wrists, will prove just as beneficial as the Issues, according to the

high authority of Dr. Rush.

General remedies are now to be attended to, which the various tonics are employed and claim our attention in the next place; The Peruvian Bark and the Valerian were once used, and had great reputation, in the cure of Angina Pectoris, but are at this time, little employed, being supplanted by the Mineral Tonics, in which, much greater confidence is placed: The principle articles of this class now used, we will mention; Dr. Cappe used and highly extolled the nitrate of Silver, Dr. Alexander the arsenic, and Dr. Perkins the vitriolated Zinc; Which of these answer best in this disease, we cannot say: A case occurred to Dr. Rush, who, mentions effecting a cure permanently with the White Vitriol. These are the principal tonics employed, but as they do not act alike upon all, we should endeavour to suit our remedies to the state of the patient; Little will our remedies effect, if our patients expose themselves to the exciting causes of the

disease: We should make it a rule on all occasions to lay down prophylactic rules, the best in this com=plaint will be, if our patient be plethoric, to ad=vise and insist upon an abstemious course of li=ving, particularly a diet, which would be perfect=ly light and easy to digest, avoiding every thing which would have a tendency to induce fulness of habit, moderate exercise especially on horseback occasional venesection, the bowels to be kept in a soluble condition, and in fact a complete alte=ration in the mode of living and habits, and care=fully guard against passion, or any emotion of the mind.